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On the Department of Energy's  
Draft Environmental Impact Statement for a  
Geologic Repository for the Disposal of Spent Nuclear Fuel and  
High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada

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January 11, 2000

Thank you for the opportunity to testify regarding the Department of Energy's Draft Environmental Impact Statement (DEIS) for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain.

I am a medical doctor, representing Physicians for Social Responsibility, American recipient of the 1985 Nobel Prize for Peace. We are a public education organization, assisting the public, our profession and policymakers on issues ranging from the dangers of nuclear war to that of environmental dangers. In southern California, we enjoy a membership of 2,500.

1

The DEIS is an incomplete and unacceptable document. It does not adequately and honestly characterize the potentially severe human health impacts of a nuclear waste repository at Yucca Mountain.

2...

Groundwater upwelling and earthquakes are two issues not adequately discussed in the DEIS. The DOE notes an opposing viewpoint, stating that "Several investigators have suggested that the water table in the vicinity of Yucca Mountain has risen dramatically higher than 100 meters (330 feet) above the current level, even reaching the land surface in the past (Szymanski, 1989<sup>2t</sup>, all). If such an event occurred, it would affect the performance of the proposed repository" (p. 3-49). DOE even admits, "if such an event occurred, the long term impacts would probably increase greatly" (p. 5-15). Yet, the DEIS dismisses this possibility and

does not address the potential impacts of such an event.

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...2 DOE notes another opposing viewpoint by Davies and Archambeau which suggests that a moderate earthquake at the site could result in a water table rise of about 150 meters (490 feet) and a severe earthquake could cause a rise of about 240 meters (790 feet) in the water table, which would flood the repository. Nevada ranks third in the nation for current seismic activity. Since 1976, there have been over 600 seismic events of a magnitude greater than 2.5 within a 50-mile radius of Yucca Mountain. The DEIS states that "earthquakes have occurred in the Yucca Mountain geologic region of influence and are likely to occur in the future" (p. 5-16). Yet, the DOE has repeatedly ignored the potential impacts of future earthquakes at the Yucca Mountain site and refuses to examine how an earthquake might affect the region's groundwater supply. |

3 | It is vital that the DOE honestly characterize the potential impacts of groundwater contamination. The residents of the Amargosa Valley rely on the groundwater that runs beneath Yucca Mountain for drinking, washing, and irrigation. The cumulative effect of contaminated groundwater on these residents will be great. The DOE fails to adequately identify those who would be most severely affected by radiological contamination of groundwater. The DEIS identifies the "critical group reference person" as an adult who lives year round in Amargosa Valley, uses a well as a primary water source, and lives in a manner similar to a typical inhabitant of Amargosa Valley (p. 5-14). The DEIS should instead identify the maximally exposed individual (MEI) person as a fetus in the womb of a subsistence farmer in the Amargosa Valley region because this fetus would more accurately represent the individual whose health will be most at risk from groundwater contamination. \_\_|

4 continued Further, | the DEIS notes that if populations were to move closer to or increase in size in the Yucca Mountain groundwater hydrology region of influence, the radiation dose and resultant impacts could increase (p. 5-17). Clark County, Nevada, is one of the fastest growing areas in the United States and the 10<sup>th</sup> largest school district

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continued

in the country. Population in this area continues to increase dramatically. This county is right next door to Nye County, where Yucca Mountain is located. It seems likely that increased expansion of the Clark County and Las Vegas areas will lead to an outward growth pattern that will result in a significant number of people living closer to Yucca Mountain and in the region of influence. Yet, the DEIS assumes that the population will remain the same for thousands of years. This assumption is absurd. The DEIS should at least use current growth patterns to predict an increase in population in the area and project the dose levels according to these predictions.

5

Groundwater contamination is a major human health concern with regard to a potential nuclear waste repository at Yucca Mountain. The DOE has a responsibility and an obligation to the American people to honestly characterize the risk associated with storing 77,000 metric tons of radioactive waste at this site. It is unacceptable for the DOE to simply say, "the groundwater probably won't be contaminated," or "populations probably won't increase," and ignore the potential for severe health related consequences in order to continue the nuclear industry's ~~lie~~ that nuclear power and the waste it produces is not dangerous.

*misrepresentation*

Once again, thank you for this opportunity.